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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,525	07/09/2001	Bernard Beier	A-2881	4905

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EXAMINER

NGHIEM, MICHAEL P

ART UNIT

PAPER NUMBER

2863

DATE MAILED: 04/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/901,525

Applicant(s)

BEIER, BERNARD

Examiner

Michael P Nghiem

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

The Response filed on February 5, 2003 has been acknowledged.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minoura et al. in view of Admitted Prior Art of pages 7-8 (APA).

Minoura et al. discloses all the claimed features of the invention including:

- a device (Fig. 1) for forming an image on a printing plate (5) comprising:

- at least one semiconductor laser (1) being operated in multi-mode, being mode-coupled (column 1, lines 33-34), and emitting laser radiation (column 1, lines 12-14) having short pulses with a duration; and

- an optical system (Fig. 1) for forming an image of radiation from the laser on the printing plate (Fig. 1).

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However, Minoura et al. does not disclose emitting ultra-short pulses with a duration of less than 1 ns.

Nevertheless, APA discloses a mode coupling method for the purpose of emitting ultra-short pulses with a duration of less than 1 ns (page 7, lines 22-25).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Minoura et al. with a mode coupling method as disclosed by APA for the purpose of emitting ultra-short pulses with a duration of less than 1 ns.

Claims 4, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minoura et al. in view of APA as applied to claims 1, 12, and 13 above, and further in view of Rothrock (US 3,657,510).

Minoura et al. as modified further discloses a modulator (2).

However, Minoura et al. as modified does not disclose:

- said one laser has a supply current with ac and dc components;
- said optical system for forming an image of the radiation on the printing plate has reflective elements;
- said optical system has micro-optical elements;

Nevertheless, Rothrock discloses a laser has a supply current with ac (ac power to 12) and dc (dc current to 11) components for the purpose of providing power from the light source, an optical system for forming an image of the radiation on the printing plate has reflective elements (14, 22) for the purpose of enlarging a laser pattern, an optical system has micro-optical elements (column 3, lines 45-49) for the purpose of focusing down the pattern.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Minoura et al. as modified with ac and dc components, reflective elements, and micro-optical elements as disclosed by Rothrock for the purposes of providing power from the light source, enlarging, and focusing down a laser pattern.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minoura et al. in view of APA as applied to claims 1, 12, and 13 above, and further in view of Huber (US 5,208,819).

Minoura et al. as modified discloses all the claimed limitations except a control arrangement for temperature regulation of the laser.

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Nevertheless, Huber discloses a control arrangement (12 controls power of laser) for the purpose of controlling the intensity of the signal.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Minoura et al. with a laser control as disclosed by Huber for the purpose of controlling the intensity of the signal.

Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minoura et al. in view of APA as applied to claims 1, 12, and 13 above, and further in view of Rothrock as applied to claims 4, 9, and 10 above and further in view of Haas (US 5,874,981).

Minuora et al. as further modified by Rothrock discloses a laser array (array of laser head, Fig. 1) comprising individually drivable single-strip diode lases (Fig. 1).

However, Minoura et al. as modified does not disclose that said at least one laser array is a diode laser array.

Nevertheless, Haas discloses a diode laser array (column 1, lines 14-16) for the purpose of supplying a writing beam.

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Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Minuora et al. as modified with a diode laser array as disclosed by Haas for the purpose of supplying a writing beam.

Response to Arguments

2. Applicant's arguments filed February 5, 2003 have been fully considered but they are not persuasive.

With respect to the 35 USC 103 rejections, Applicants argue that Minuora et al. does not teach a laser operated in multi-mode or being mode coupled. It is clearly disclosed that the semiconductor laser is a single-mode laser capable of constantly maintaining a single oscillating mode (column 2, lines 19-24, column 8, lines 26-28).

Examiner's position is that Minuora et al. discloses the claimed invention under the "Description of Prior Art" section and in the conventional scanning system of Fig. 1. In particular, Minuora et al. discloses a semiconductor laser (1) being operated in multi-mode (column 1, lines 33-34), and emitting laser radiation (column 1, lines 12-14) having short pulses with a duration (via modulator 2).

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (703) 306-3445. The examiner can normally be reached on M-H from 6:30AM – 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached at (703) 308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-5841 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



**MICHAEL NGHIEM
PRIMARY EXAMINER**

Michael Nghiem

April 7, 2003